

## ABSTRACT OF THE DISCLOSURE

A network gateway device is provided with a network physical interface for receiving and transmitting data and for receiving packets for transmission and forwarding packets from received data. A packet processor is provided that provides for a key exchange and hosts a security association (SA) used for encryption and decryption for communication with a network peer. The packet processor includes an ingress processing security subsystem with a decryption processor for decrypting packets and an egress processing security subsystem for encrypting packets. One or both of the ingress processing security subsystem and the egress processing security subsystem receiving one or both of ingress and egress SAs. The packet processor may include a processor subsystem for handling key exchanges and for distributing SAs to the ingress processing security subsystem and the egress processing security subsystem. As an alternative, the ingress processing security subsystem and the egress processing security subsystem may host a security association (SA) used for encryption and decryption for communication with a network peer. One of the ingress processing security subsystem and the egress processing security subsystem distributes at least one of an ingress and an egress SA to the other of the ingress processing security subsystem and the egress processing security subsystem.